

Table 4-15
Hot Spot Locations - Non-Tidal Wetland Areas
Alternative 4
Investigation Area H1 Feasibility Study
Mare Island, Vallejo, California

Subarea Location	Location	Collection Date	Upper Depth (feet)	Lower Depth (feet)	Analyte	Concentration (mg/kg)	Risk Criteria								Is Sample Location Included in Alternative?	
							Exceeds HH PRG	Exceeds Threat to GW PRG	Exceeds Eco High TRV, HQ=3		Exceeds Eco High TRV, HQ=5		Exceeds Eco High TRV, HQ=10			
									non-T&E	T&E	non-T&E	T&E	non-T&E	T&E		
Northwest Dump Road Wetland	IR01GB085	11/2/1998	2	2.5	Arsenic	36.3	x									No ³
		1/24/1995	0	0.5	Antimony	53.1			x		x		x			Yes
					Chromium	174			x		x		x			
					Copper	2,320			x	x	x		x		x	
					Lead	950	x		x	x	x	x	x			
					Tin	65.6									x	
					Total PCBs	4			x		x					
					Zinc	1,480			x						x	
				2.5	Copper	1,760									x	
					Lead	1,000	x									
West (Pond 1)	IR01GB120	11/10/1999	4	4.5	Nickel	423									x	No ²
					Tin	110									x	
					Total PCBs	970	x								x	
					Zinc	3,420									x	
					Chromium	3,100									x	
					Nickel	447									x	
					Zinc	793									x	
					Benzo(a)anthracene	3.6821									x	No ²
	IR01GB121	11/10/1999	1	1.5	Benzo(a)pyrene	3.0884									x	
					Benzo(b)fluoranthene	2.755									x	
					Chrysene	3.742									x	
					Fluoranthene	5.6279									x	
					Indeno(1,2,3-cd)pyrene	1.4573									x	
					Phenanthrene	2.2809									x	
					Pyrene	6.3265									x	
					Antimony	19.5				x						Yes
					Arsenic	143	x			x					x	
					Barium	429		x								
					Benzo(a)anthracene	0.9029									x	
					Benzo(a)pyrene	0.3252									x	
					Chrysene	1.3254									x	
					Copper	2,150			x	x	x	x			x	
					Fluoranthene	2.3151									x	
					Lead	2,790	x		x	x	x	x	x	x		
					Phenanthrene	0.9858									x	
					Pyrene	2.7181									x	
					Zinc	16,800			x	x	x	x	x	x	x	

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									non-T&E	T&E	non-T&E	T&E	non-T&E	T&E			
West (Pond 1)	IR01GB121	11/10/1999	2	2.5	Anthracene	49.589										x	Yes
					Benzo(a)anthracene	15.406										x	
					Benzo(a)pyrene	3.6674										x	
					Benzo(b)fluoranthene	4.3169										x	
					Chrysene	18.5404										x	
					Fluoranthene	98.2243										x	
					Indeno(1,2,3-cd)pyrene	1.0979										x	
					Phenanthrene	85.3286										x	
					Pyrene	52.2949										x	
			4	4.5	Aluminum	77.600										x	
					Benzo(a)anthracene	38.6168										x	
					Benzo(a)pyrene	26.046	x									x	
					Benzo(b)fluoranthene	30.85										x	
					Chrysene	38.6333										x	
					Copper	1.340										x	
					Fluoranthene	80.3271										x	
					Indeno(1,2,3-cd)pyrene	10.3041										x	
					Lead	5.460	x									x	
					Nickel	366										x	
			6	6.5	Phenanthrene	51.7382										x	
					Pyrene	74.6613										x	
					Zinc	829										x	
					Benzo(a)anthracene	46.3247										x	
					Benzo(a)pyrene	40.1935	x									x	
					Benzo(b)fluoranthene	44.2161										x	
					Benzo(g,h,i)perylene	18.5943										x	
					Benzo(k)fluoranthene	29.4321										x	
					Chrysene	49.6007										x	
					Copper	1.260										x	
					Fluoranthene	81.3671										x	
			4	4.5	Indeno(1,2,3-cd)pyrene	18.4204										x	
					Lead	6.890	x									x	
					Nickel	495										x	
					Phenanthrene	18.0591										x	
					Pyrene	76.4138										x	
					TPH as motor oil	8.600										x	
					Zinc	1.370										x	
	IR01GB122	11/10/1999			Copper	834										x	No ²
	Nickel	493												x			
	Zinc	1,080												x			
WS-SB01	11/17/2003	0	0.5		Copper	470										x	No ²

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									non-T&E	T&E	non-T&E	T&E	non-T&E	T&E				
Wetland A	FF-SB06	11/21/2003	2	3	Benzo(b)fluoranthene	11									x	Yes		
					Pyrene	6									x			
			6	7	TPH as motor oil	17,000		x							x	No ²		
		11/6/1998			Benzo(a)anthracene	0.33									x			
					Benzo(a)pyrene	0.66									x			
					Fluoranthene	0.84									x	Yes		
					Pyrene	1.4									x			
	IR01HA036		1.5	2	Chromium	257			x		x		x			Yes		
					Copper	755									x			
					Lead	415			x									
					Nickel	222			x		x		x					
WETASD005	IR16-B3B5-K16	4/12/2004	2	2.5	Copper	2,600									x	No ²		
	IR16SS424	7/6/1994	0	0.5	Chromium	176			x		x		x			No ¹		
	IR16SS451	9/30/1994	0	0.5	Chromium	177			x		x		x			No ¹		
	WETASD005	6/18/1997	0	0.5	Mercury	2.2			x							No ¹		
		6/18/1997	1	1.5	Mercury	2.6			x							No ¹		
	WETASD012	6/17/1997	1	1.5	Manganese	2,340			x							No ¹		
Wetland B	IR01HA008	5/10/1994	0	0.5	Chromium	179			x		x		x			No ¹		
					Nickel	155				x		x						
	IR01HA009	7/12/1994	0	0.5	Chromium	182			x		x		x			No ¹		
	IR01HA010	7/12/1994	0	0.5	Chromium	157			x		x		x			No ¹		
	IR01HA011	7/12/1994	0	0.5	Chromium	172			x		x		x			No ¹		
					Vanadium	192				x								
	IR01HA012	7/12/1994	0	0.5	Chromium	168			x		x		x			No ¹		
	IR01HA013	7/15/1994	0	0.5	Chromium	180			x		x		x			No ^{1,2}		
					Copper	296									x			
	IR01HA014	7/15/1994	0	0.5	Chromium	184			x		x		x			No ¹		
	IR01HA015	7/27/1994	0	0.5	Chromium	182			x		x		x			No ¹		
	IR01HA016	7/27/1994	0	0.5	Chromium	166			x		x		x			No ¹		
	IR01-SB04	2/14/1991	3.5	4	Copper	321									x	No ²		
	IR02GB016	11/9/1993	1.5	2	Chromium	170			x		x		x			No ¹		
	IR16SS406	6/8/1994	0.25	0.5	Chromium	164			x		x		x			No ¹		
	IR16SS407	6/8/1994	0.25	0.5	Chromium	193			x		x		x			No ¹		
	IR16SS408	6/8/1994	0.25	0.5	Chromium	165			x		x		x			No ¹		
	IR16SS430	7/6/1994	0	0.5	Chromium	177			x		x		x			No ^{1,2}		
					Copper	629									x			
					Nickel	177				x		x						
					Tin	59.8									x			
					Zinc	1,790			x						x			

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Wetland B	IR16SS431	7/6/1994	0	0.5	Chromium	168			x		x		x			No ¹
	IR16SS435	7/6/1994	0	0.5	Chromium	161			x		x		x			No ¹
	IR16SS450	9/30/1994	0	0.5	Chromium	196			x		x		x			No ¹
	WETBSD029	6/17/1997	1	1.5	Arsenic	43.2	x									No ³
	WETBSD030	6/17/1997	1	1.5	Mercury	2.2			x							No ¹
	WETBSD031	6/17/1997	0	0.5	Arsenic	37	x									No ^{1,3}
					Nickel	155				x		x				
	WETBSD032	6/16/1997	1	1.5	Manganese	4540			x		x				x	Yes
					Nickel	152				x		x				
	WETBSD033	6/16/1997	1	1.5	Manganese	2430			x							No ¹
	WETBSD034	6/16/1997	1	1.5	Nickel	131				x		x				No ¹
	WETBSD035	6/16/1997	0	0.5	Arsenic	36.5	x									No ^{1,3}
					Nickel	149				x		x				
			1	1.5	Mercury	2.5			x							
	WETBSD036	6/16/1997	1	1.5	Arsenic	37.1	x									No ^{1,3}
					Mercury	2.2			x							
					Nickel	131				x		x				
	WETBSD050	4/22/1999	0	0.5	Mercury	2.4			x							Yes
					Nickel	140				x		x				
			1	1.5	Manganese	4,810			x		x				x	
					Nickel	148				x		x				
WETBSD051	4/23/1999	0	0.5	Nickel	132				x		x					No ¹
WETBSD053	4/27/1999	1	1.5	Mercury	5.1				x		x					No ¹
WETBSD055	4/28/1999	0	0.5	Nickel	132				x		x					No ¹
Wetland C	IR01HA001	4/29/1994	0	1	Chromium	189			x		x		x			No ¹
	IR01HA002	5/3/1994	0	0.5	Chromium	173			x		x		x			No ¹
	IR01HA003	5/3/1994	0	0.5	Chromium	192			x		x		x			No ¹
	IR01HA004	5/5/1994	0	0.5	Chromium	172			x		x		x			No ¹
	IR01HA059	11/6/1998	1.5	2	Total PCBs	2			x							Yes
Wetland D	H-14	12/29/2004	0	0.6	Manganese	3,800			x		x					No ¹

Notes:

1- This sample location is not included as part of the alternative since the 95% UCL concentration for chemicals at this location across the Non-Tidal Wetland Area

are lower than their respective Mare Island ambient concentrations and this location does not correspond with an identified risk driver or outlier concentration.

2 - An outlier concentration was present at this location but did not present a risk to human or ecological receptors. This point is not included in this alternative.

3 - The site-wide 95% UCL for arsenic is below background (36 mg/kg). This point is not included in this alternative.